# DISTRIBUTED FORWARDING IN VIRTUAL NETWORK DEVICES

Sitaram Dontu
Faisal Mushtaq
Shreeram Bhide
Michael R. Smith
Ali Golshan

## ABSTRACT OF THE DISCLOSURE

[00109]    A virtual network device sub-unit includes an interface to a virtual network device link and a distributed forwarding module. The interface receives a packet, and the distributed forwarding module forwards the packet received by the interface. The distributed forwarding module performs an ingress lookup if the packet includes a multicast destination address and an egress lookup if the packet includes a unicast destination address. If the packet includes a multicast destination address, the distributed forwarding module replicates the packet for each of several outgoing VLANs associated with the multicast destination address. If an additional multicast packet is received via an interface that is not coupled to a virtual network device link, the distributed forwarding module sends at most one copy of the additional multicast packet via the virtual network device link.